

MNR

MORBIDITY AND MORTALITY WEEKLY REPORT

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Rat-Bite Fever — New Mexico, 1996

Rat-bite fever (RBF) is a systemic bacterial illness caused by *Streptobacillus monili-formis* that can be acquired through the bite or scratch of a rodent or the ingestion of food or water contaminated with rat feces. Cases are rarely reported in the United States and the true incidence of disease is unknown. On August 7, 1996, a physician in a rural community reported a case of infection with *S. moniliformis* bacteremia in a 15-year-old boy to the New Mexico Department of Health. This report summarizes the results of the investigation of this case and indicates the need for ongoing surveillance for this illness.

On July 29, the patient presented to the local emergency department because of a 3-day history of irregularly relapsing fever (104.0 F [40.0 C]), shaking chills, progressive myalgia, nausea, and vomiting. Findings on physical examination included fever (102.0 F [38.9 C]), tachycardia, and pharyngeal erythema without exudate. He was hospitalized for further evaluation. On admission, the patient's white blood cell count was 8000/mm³ (4,300–10,800/mm³) with a differential of 46 neutrophils, 47 bands, 3 lymphocytes, and 4 monocytes. Possible sepsis was presumptively diagnosed and treatment was initiated with intravenous cefuroxime and gentamicin followed by a 7-day course of an oral second-generation cephalosporin; no relapse was reported. Blood cultures were obtained before initiation of antibiotic therapy and incubated in trypticase soy broth (1). On August 5 (day 7 of incubation), the hospital laboratory isolated a Gram-negative rod from one aerobic blood culture sample; the organism was later confirmed by Gram stain and biochemical tests as *S. moniliformis* at the New Mexico Department of Health's Scientific Laboratory Division.

To determine possible risk factors for *S. moniliformis* and identify possible modes of transmission, interviews were conducted with family members, close contacts of the boy, and local physicians. Active surveillance was initiated to detect cases of febrile illness among the boys' teammates on a local youth baseball team and at area hospitals and laboratories to identify suspected cases of Gram-negative bacteremia.

On July 29, a baseball teammate of the patient presented to his physician because of a 2-day history of irregularly relapsing fever (102.0 F [38.9 C]), severe backaches, and a sore throat. The boy was treated empirically for pharyngitis with oral amoxicillin; he discontinued therapy after 3 days.

Blood cultures obtained on July 29 were incubated for 5 days, then discarded because they were negative. On August 7, symptoms recurred and treatment was rein-

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itiated with a second course of oral amoxicillin for 7 days; he recovered completely. A rickettsial panel and a monospot test were both negative. A diagnosis of RBF could not be confirmed.

Both boys had participated in baseball-related trips in the month before onsets of illness. On both trips, team members stayed in motels and played baseball for 5 days. Neither boy camped or slept outdoors, and there was no history of contact with any rodents or wild animals or of insect bites. However, both boys had played with and were licked by the same domestic dog of the second boy at his home, and both had consumed water from an open irrigation ditch at the site of the baseball field in Farmington, New Mexico, approximately 3–4 days before onset of symptoms. No additional cases were detected among team members or coaches who had shared living quarters and meals with the boys; no other team members were known to have consumed water from the irrigation ditch.

Reported by: WM Ryan, MD, Española Hospital, Española; L Nims, MS, DW Keller, MD, CM Sewell, DrPH, State Epidemiologist, New Mexico Dept of Health. Div of Bacterial and Mycotic Diseases, National Center for Infectious Diseases; Div of Applied Public Health Training (proposed), Epidemiology Program Office; and an EIS Officer, CDC.

Editorial Note: RBF refers to two similar diseases caused by different gram-negative facultative anaerobes: streptobacillary RBF caused by infection with *S. moniliformis* and spirillary RBF by *Spirillum minus* (2,3). The incubation period of RBF caused by *S. moniliformis* can range from 1 to 22 days, but onset usually occurs 2–10 days after the bite of a rat. The clinical syndrome is characterized by irregularly relapsing fever and asymmetric polyarthritis followed within 2–4 days by a maculopapular rash on the extremities, palms, and soles. The wound from the bite heals spontaneously. Headache, nausea, vomiting, myalgia, minimal regional lymphadenopathy, anemia, endocarditis, myocarditis, meningitis, pneumonia, and focal abscesses have been reported (2–6). Although most cases resolve spontaneously within 2 weeks, 13% of untreated cases are fatal (2). A second form of RBF caused by *Spirillum minus* occurs worldwide, but is most common in Asia; this form is characterized by a longer incubation period (1–3 weeks), rare arthralgia, and an inoculation wound which can reappear at the onset of symptoms or persist with edema and ulceration (2–4).

Streptobacillary RBF can be diagnosed by blood culture only, and the organism is characterized by strict growth requirements and slow growth, making it difficult for most laboratories to culture (1,2,5). No serologic test is available for *S. moniliformis*; the previous slide agglutination test is no longer available because of performance limitations.

RBF is rare in the United States, and accurate data about incidence rates are unavailable because the disease is not reportable in any state (3). Most cases in the United States are caused by *S. moniliformis* acquired through rat bites or scratches (2). Nasopharyngeal carriage rates in healthy laboratory rats range from 10% to 100%; carriage rates in wild rats range from 50% to 100% (2,3). Cases of RBF also have been associated with the bites of mice, squirrels, and gerbils and exposure to animals that prey on these rodents (e.g., cats and dogs) (2). Sporadic cases have been reported in children without histories of direct rodent contact but who lived in rat-infested dwellings (2,4). Ingestion of food or water potentially contaminated with rat feces also can result in *S. moniliformis* bacteremia (i.e., Haverhill fever) (7). Two large outbreaks of Haverhill fever have occurred worldwide; implicated sources were

Rat-Bite Fever — Continued

raw milk and contaminated drinking water (6,7). Based on the investigation in this report, potential sources of infection included common exposures to the same dog and consumption of surface water. In particular, both boys in this report ingested water from an open irrigation ditch that could have been contaminated with rat feces.

S. moniliformis and Spirillum minus are susceptible to penicillin. Recommended treatment is intravenous penicillin for 5–7 days followed by oral penicillin for 7 days. Mild cases can be treated with oral penicillin alone (2). Other appropriate therapies include tetracycline and streptomycin (2,3). Although other antibiotics have been used (i.e., erythromycin, chloramphenicol, clindamycin, and cephalosporins) with some success, the effectiveness of these agents has not been assessed rigorously (2). The efficacy of prophylactic antibiotic therapy against RBF following a rodent bite is unknown (2,4).

References

- 1. CDC. Streptobacillus moniliformis. In: Clark WA, Hollis DG, Weaver RE, Riley P, eds. Identification of unusual pathogenic gram-negative aerobic and facultatively anaerobic bacteria. Atlanta, Georgia: US Department of Health and Human Services, CDC, 1984:288–9.
- 2. Washburn RG. *Streptobacillus moniliformis* (rat-bite fever). In: Mandell GL, Bennett JE, Dolin R, eds. Principles and practice of infectious diseases. Vol 2. New York: Churchill Livingstone, 1995:2084–6.
- 3. CDC. Rat-bite fever in a college student—California. MMWR 1984;33:318-20.
- 4. Benenson AS, ed. Control of communicable diseases in man. 16th ed. Washington, DC: American Public Health Association, 1995:391–2.
- 5. Rupp ME. *Streptobacillus moniliformis* endocarditis: case report and review. Clin Infect Dis 1992;14:769–72.
- 6. McEvoy MB, Noah ND, Pilsworth R. Outbreak of fever caused by *Streptobacillus moniliformis*. Lancet 1987:2:1361–3.
- 7. Place EH, Sutton LE Jr. Erythema athriticum epidemicum (Haverhill fever). Arch Intern Med 1934;54:659–84.

Missed Opportunities in Preventive Counseling for Cardiovascular Disease — United States, 1995

Cardiovascular disease (CVD), the leading cause of death in the United States, caused 960,592 deaths in 1995 (1) (41.5% of all deaths). Approximately 58 million persons in the United States (20% of the total population) have one or more types of CVD, which include high blood pressure, coronary heart disease, stroke, rheumatic fever or rheumatic heart disease, and other forms of heart disease. Behavioral risk factors for CVD and other chronic diseases include physical inactivity, a diet high in fat, overweight, and smoking. The U.S. Preventive Services Task Force and the American Heart Association recommend that all primary-care providers offer their patients counseling to promote physical activity, a healthy diet, and smoking cessation as part of the preventive health examination (2,3). To characterize the provision of counseling by physicians about preventive health behaviors during office visits in 1995, data were analyzed from CDC's National Ambulatory Medical Care Survey (NAMCS). This report summarizes the results of that analysis, which indicates that a high proportion of office visits in 1995 did not include counseling for the prevention of CVD.

The analysis was restricted to the 29,273 office visits by persons aged ≥20 years who sought either a general medical or routine gynecologic examination. Visits excluded were those for examinations for illness or injury, school or employment, prenatal care, birth control consultation, assessment of specific organ systems, and follow-up or progress visits. Physicians participating in NAMCS were asked to complete a standardized survey form about visit diagnoses, patient characteristics, and provision of diagnostic and preventive services during office visits. After weighting for selection probability, nonresponse, and a physician-population weighting ratio adjustment, the 29,273 office visits resulted in a national estimate of 40 million office visits during 1995 (4).

During 1995, 29.5% of office visits were with obstetricians or gynecologists, 26.3% with internists, 25.0% with family or general practitioners, 2.4% with cardiologists, and 16.9% with other specialists. Physicians reported offering counseling about physical activity during 19.1% of office visits, diet during 22.8%, and weight reduction during 10.4% (Table 1). Counseling was reported more commonly for persons aged 50–64 years, for men than for women (physical activity [23.0% versus 17.5%, respectively], diet [26.6% versus 21.2%, respectively]), and weight reduction [12.0% versus 9.7%, respectively]), and for non-Hispanic whites and Hispanics (physical activity [19.7% and 19.9%, respectively]) than for non-Hispanic blacks (13.0%). The prevalence of reported counseling was lowest in the South and highest in the Midwest.* Cardiologists and family or general practitioners were more likely than other specialists to provide counseling about physical activity, diet, and weight reduction (Figure 1).

Among all respondents, 64% reported that their office visits included an assessment of smoking status; among current smokers, 41% of office visits included smoking cessation counseling.

Reported by: Cardiovascular Health Br, Div of Adolescent and Community Health, National Center for Chronic Disease Prevention and Health Promotion, CDC.

Editorial Note: Office visits for general medical and routine gynecologic examinations provide an important opportunity for physicians to counsel patients about reducing behaviors associated with CVD. However, the findings in this report indicate that, in 1995, high proportions of patient visits did not include such counseling. Although reported counseling rates were higher for visits to cardiologists than to other specialists, cardiologists accounted for only 2.4% of visits in 1995. The low prevalence of counseling among obstetricians and gynecologists—a group of physicians that accounted for almost one third of office visits in the survey—represents a substantial loss of opportunity. The lower prevalence of counseling among women may be, in part, a result of a high proportion of women receiving care from obstetricians and gynecologists; however, when the analysis excluded these specialists, women were still less likely than men to receive preventive counseling. Although physically active persons often cite a physician's advice as a major motivating factor in their decision to be become physically active (5), physician advice is related to physicians attitudes about physical

^{*}Northeast=Connecticut, Maine, Massachusetts, New Hampshire, New Jersey, New York, Pennsylvania, Rhode Island, and Vermont; Midwest=Illinois, Indiana, Iowa, Kansas, Michigan, Minnesota, Missouri, Nebraska, North Dakota, Ohio, South Dakota, and Wisconsin; South=Alabama, Arkansas, Delaware, District of Columbia, Florida, Georgia, Kentucky, Louisiana, Maryland, Mississippi, North Carolina, Oklahoma, South Carolina, Tennessee, Texas, Virginia, and West Virginia; and West=Alaska, Arizona, California, Colorado, Hawaii, Idaho, Montana, Nevada, New Mexico, Oregon, Utah, Washington, and Wyoming.

TABLE 1. Number and percentage of persons who attended general medical/gynecologic visits that included counseling for prevention of cardiovascular disease, by selected characteristics — United States, National Ambulatory Medical Care Survey, 1995

		Subject of counseling										
	Estimated	Physic	cal activity	ı	Diet	Weight	reduction					
Characteristic	no. visits*	(%)	(95% CI†)	(%)	(95% CI)	(%)	(95% CI)					
Age group (yrs)												
20–34	6.9	18.9	(± 6.4%)	20.1	(± 6.6%)	7.9⁵	(± 4.4%)					
35–49	10.3	15.9	(± 4.9%)	17.7	(± 5.1%)	10.5	(± 4.1%)					
50–64	9.8	23.8	(± 5.9%)	29.5	(± 6.3%)	15.1	(± 4.9%)					
≥65	13.0	18.2	(± 4.6%)	23.2	$(\pm 5.0\%)$	8.0	(± 3.2%)					
Sex												
Men	11.8	23.0	(± 5.3%)	26.6	(± 5.5%)	12.0	(± 4.1%)					
Women	28.2	17.5	(± 3.1%)	21.2	(± 3.3%)	9.7	(± 2.4%)					
Race/Ethnicity¶												
White, non-Hispanic	34.4	19.7	(± 2.9%)	23.1	(± 3.1%)	10.3	(± 2.2%)					
Black, non-Hispanic	3.7	13.0§	(± 7.8%)	21.5	(± 9.2%)	10.9§	(± 7.0%)					
Hispanic	1.9	19.9§	(±12.6%)	20.3§	(±12.7%)	11.9§	(±10.2%)					
Region**												
Northeast	9.4	20.2	(± 5.6%)	23.2	(± 5.9%)	10.2	(± 4.3%)					
Midwest	9.7	22.3	(± 5.8%)	25.7	(± 6.0%)	14.4	(± 4.8%)					
South	12.6	14.3	(± 4.2%)	15.7	(± 4.4%)	5.8	(± 2.8%)					
West	8.3	21.4	(± 6.1%)	29.7	(± 6.8%)	12.9	(± 5.0%)					
Total	40.0	19.1	(± 2.7%)	22.8	(± 2.9%)	10.4	(± 2.1%)					

^{*}In millions.

activity: in 1991, 59% of primary-care physicians believed that engaging in regular physical activity was very important for their patients; only 24% reported that they would be able to modify patient behavior (6).

The low proportion of office visits that included counseling about diet probably reflected physician attitudes about dietary advice (5). In 1988, 92% of internal medicine residents reported that a low-fat, low-cholesterol diet can effectively lower cholesterol levels, and 68% reported that they are responsible for providing dietary advice; however, 72% of physicians believed they were inadequately prepared to provide dietary counseling (7). One third of U.S. adults are overweight, and the low prevalence of counseling for weight reduction (10.4%) indicates that most overweight adults are not being counseled about weight reduction (8). Physician counseling

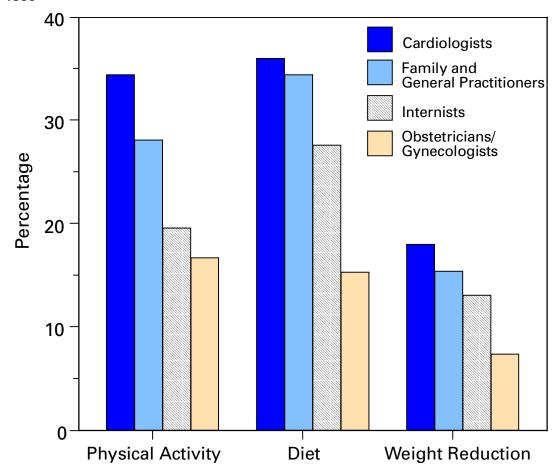
[†]Confidence interval.

[§]Estimates should be interpreted with caution because the relative standard error is ≥30%.

[¶]Numbers for other racial/ethnic groups were too small for meaningful analysis.

^{**} Northeast=Connecticut, Maine, Massachusetts, New Hampshire, New Jersey, New York, Pennsylvania, Rhode Island, and Vermont; Midwest=Illinois, Indiana, Iowa, Kansas, Michigan, Minnesota, Missouri, Nebraska, North Dakota, Ohio, South Dakota, and Wisconsin; South=Alabama, Arkansas, Delaware, District of Columbia, Florida, Georgia, Kentucky, Louisiana, Maryland, Mississippi, North Carolina, Oklahoma, South Carolina, Tennessee, Texas, Virginia, and West Virginia; and West=Alaska, Arizona, California, Colorado, Hawaii, Idaho, Montana, Nevada, Oregon, Utah, Washington, and Wyoming.

FIGURE 1. Percentage of general medical examinations that involved counseling, by physician specialty — United States, National Ambulatory Medical Care Survey, 1995



about weight reduction should include advice about weight maintenance for all adults and caloric restriction and increased physical activity for persons who are overweight.

Barriers to physician counseling include time constraints, lack of reimbursement, and lack of professional training (9). To promote counseling by all health-care providers, training programs for physicians should increase emphasis on preventive counseling. In addition to medical schools, such training should be provided in residencies, other postgraduate programs, continuing medical education, and by professional organizations. Increasing enrollment in managed-care programs highlights the opportunities for counseling for prevention of CVD and other disease-prevention and health-promotion activities in such programs.

References

- 1. American Heart Association. 1998 Heart and stroke statistical update. Dallas, Texas: American Heart Association, 1997.
- 2. U.S. Preventive Services Task Force. Guide to clinical preventive services. 2nd ed. Baltimore: Williams & Wilkins, 1996.

- 3. Grundy SM, Balady GJ, Criqui MH, et al. Guide to primary prevention of cardiovascular diseases: a statement for healthcare professionals from the Task Force on Risk Reduction. Circulation 1997;95:2329–31.
- 4. Schappert SM. Ambulatory care visits to physician offices, hospital outpatient departments, and emergency departments: United States, 1995. Hyattsville, Maryland: US Department of Health and Human Services, CDC, 1997; DHHS publication no. (PHS)97-1790. (Vital and health statistics, series 13, no. 129).
- 5. Macera CA, Croft JB, Brown DR, Ferguson JE, Lane MJ. Predictors of adopting leisure-time physical activity among a biracial community cohort. Am J Epidemiol 1995;142:629–35.
- 6. Yeager KK, Donehoo RS, Macera CA, Croft JB, Heath GW, Lane MJ. Health promotion practices among physicians. Am J Prev Med 1996;12:238–41.
- 7. Ammerman AS, DeVellis RF, Carey TS, et al. Physician-based diet counseling for cholesterol reduction: current practices, determinants, and strategies for improvement. Prev Med 1993;22:96–109.
- 8. Kuczmarski RJ, Flegal KM, Campbell SM, Johnson CL. Increasing prevalence of overweight among US adults: The National Health and Nutrition Examination Surveys, 1960 to 1991. JAMA 1994;272:205–11.
- 9. Anda RF, Remington PL, Sienko DG, Davis RM. Are physicians advising smokers to quit? The patient's perspective. JAMA 1987;257:1916–9.

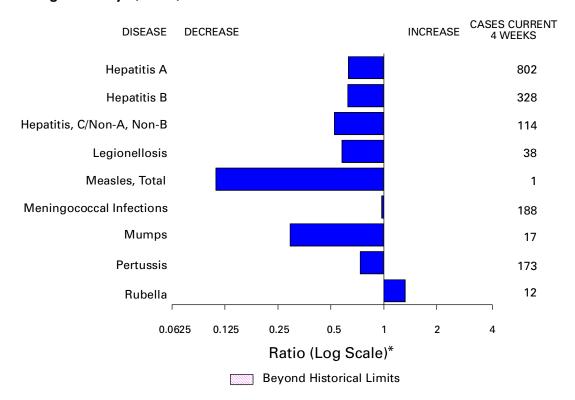
Notice to Readers

Course on New and Reemerging Infectious Diseases

New and Reemerging Infectious Diseases: A Clinical Course will be held June 13–15, 1998, in Atlanta. Cosponsors are CDC, Emory University School of Medicine, and the National Foundation for Infectious Diseases (NFID). This course focuses on the epidemiology, recognition, treatment, and management of new and reemerging infectious diseases. Infectious disease clinicians and epidemiologists will present pertinent information about emerging problems, as well as the latest information about prospective therapeutic agents.

Additional information is available from Kip Kantelo, NFID, 4733 Bethesda Avenue, Suite 750, Bethesda, MD 20814-5228; telephone (301) 656-0003; fax (301) 907-0878; World-Wide Web site: http://www.nfid.org/nfid; or by e-mail: kkantelo@aol.com.

FIGURE I. Selected notifiable disease reports, comparison of provisional 4-week totals ending February 7, 1998, with historical data — United States



^{*}Ratio of current 4-week total to mean of 15 4-week totals (from previous, comparable, and subsequent 4-week periods for the past 5 years). The point where the hatched area begins is based on the mean and two standard deviations of these 4-week totals.

TABLE I. Summary — provisional cases of selected notifiable diseases, United States, cumulative, week ending February 7, 1998 (5th Week)

	Cum. 1998		Cum. 1998
Anthrax Brucellosis Cholera Congenital rubella syndrome Cryptosporidiosis* Diphtheria Encephalitis: California*	99 - - - - 6 - 1	Plague Poliomyelitis, paralytic¶ Psittacosis Rabies, human Rocky Mountain spotted fever (RMSF) Streptococcal disease, invasive Group A Streptococcal toxic-shock syndrome* Syphilis, congenital** Tetanus Toxic-shock syndrome Trichinosis Typhoid fever Yellow fever	2 6 120 8 - 2 6 1 17

^{-:}no reported cases
*Not notifiable in all states.

† Updated weekly from reports to the Division of Viral and Rickettsial Diseases, National Center for Infectious Diseases (NCID). Supdated monthly to the Division of HIV/AIDS Prevention–Surveillance and Epidemiology, National Center for HIV, STD, and TB Prevention (NCHSTP), last update January 15, 1998.

¶ Updated from reports to the Division of STD Prevention, NCHSTP.

TABLE II. Provisional cases of selected notifiable diseases, United States, weeks ending February 7, 1998, and February 1, 1997 (5th Week)

	AIDS		01.1		coli O	erichia 157:H7			Hepa	
	Cum.	Cum.	Cum.	mydia Cum.	NETSS [†] Cum.	PHLIS [§] Cum.	Gono Cum.	rrnea Cum.	C/N/ Cum.	Cum.
Reporting Area	1998*	1997	1998	1997	1998	1998	1998	1997	1998	1997
UNITED STATES NEW ENGLAND	3,171 64	5,933 133	35,840 1,651	37,881 1,518	53 5	13 3	24,963 493	25,887 570	143 1	242 4
Maine	2	13	29	55	- -	-	6	3	-	-
N.H. Vt.	- 5	1 7	47 27	70 34	-	2	9	25 5	-	-
Mass.	6	61	875	693	4	1	227	242	1	4
R.I. Conn.	12 39	19 32	241 432	179 487	1 -	-	36 215	49 246	-	-
MID. ATLANTIC	902	1,925	5,094	4,562	1	-	3,075	3,179	11	15
Upstate N.Y. N.Y. City	114 490	117 1,033	N 3,292	N 2,572	1 -	-	102 1,643	579 1,323	9	10 -
N.J. Pa.	135 163	473 302	57 1,745	939 1,051	- N	-	363 967	605 672	2	- 5
E.N. CENTRAL	203	373	7,191	6,233	9	1	5,538	4,235	37	66
Ohio Ind.	32 39	92 25	2,366 516	2,010 714	5 4	-	1,429 484	1,416 560	2 1	3 1
III.	102	115	2,143	968	-	-	1,943	533	-	7
Mich. Wis.	15 15	118 23	1,940 226	1,476 1,065	N	2	1,561 121	1,261 465	34	55 -
W.N. CENTRAL	55	187	2,192	2,834	5	3	851	1,223	5	10
Minn. Iowa	15 6	17 36	357 39	666 518	3 1	4	170 13	243 143	3	-
Mo.	19	112	956	999	-	1	355	607	2	8
N. Dak. S. Dak.	4	2	149	82 78	-	-	22	5 9	-	-
Nebr. Kans.	9 2	13 7	62 629	147 344	- 1	-	10 281	45 171	-	2
S. ATLANTIC	793	1,543	8,180	7,086	12	1	7,452	7,584	11	16
Del. Md.	13 53	20 179	182 648	453	- 5	- 1	155 764	120 1,099	2	3
D.C.	83	117	N	N	-	-	366	478	-	-
Va. W. Va.	39 5	131 14	942 293	988 347	N N	-	741 85	770 106	1 -	-
N.C. S.C.	45 59	59 104	1,684 1,689	1,886 961	3	-	1,442 1,292	1,555 1,197	3	4 9
Ga.	116	187	1,643	593	2	-	1,653	723	-	-
Fla. E.S. CENTRAL	380 156	732 134	1,099	1,858 2,906	2 3	- 1	954 3,568	1,536 3,435	5 9	23
Ky.	19	23	3,245 498	574	1	-	389	435	-	-
Tenn. Ala.	52 56	58 38	1,247 910	970 703	1 1	1	1,238 1,307	1,004 1,129	8 1	8 1
Miss.	29	15	590	659	-	1	634	867	-	14
W.S. CENTRAL Ark.	382 17	442 18	2,260 314	4,264 205	-	-	2,325 589	3,168 410	-	14
La.	67	85	1,270	546	-	-	1,329	607	-	11
Okla. Tex.	14 284	32 307	676 -	485 3,028	-	-	407 -	440 1,711	-	3
MOUNTAIN	88	139	1,628	1,917	6	4	684	689	42	31
Mont. Idaho	6 3	7 2	61 33	74 124	2	-	-	4 14	3 10	2 8
Wyo. Colo.	- 21	1 38	67	42 104	- 1	- 1	5 281	5 187	21 2	12
N. Mex.	9	4	533	392	2	1	98	98	2	3 2
Ariz. Utah	33 13	28 16	751 173	766 129	N 1	2	278 19	268 15	3	3
Nev.	3	43	10	286	-	-	3	98	1	1
PACIFIC Wash.	528 34	1,057 45	4,399 1,011	6,561 804	12 -	-	977 175	1,804 208	27	63 -
Oreg.	12	30	279	407 5,141	2	-	48	61	1	1
Calif. Alaska	477 -	961 1 <u>6</u>	2,792 167	119	10	-	695 29	1,441 53	16	43
Hawaii	5	5	150	90 28	N	-	30 2	41	10	19
Guam P.R.	- 88	144	8 U	U	N 1	Ū	39	2 46	2	3
V.I. Amer. Samoa	1 -	4	N -	N -	N N	U U	-	-	-	-
C.N.M.I.	-	-	N	N	Ň	ŭ	5	4	-	1

N: Not notifiable

U: Unavailable

-: no reported cases

C.N.M.I.: Commonwealth of Northern Mariana Islands

^{*}Updated monthly to the Division of HIV/AIDS Prevention–Surveillance and Epidemiology, National Center for HIV, STD, and TB Prevention, last update January 25, 1998

last update January 25, 1998.

National Electronic Telecommunications System for Surveillance.

Public Health Laboratory Information System.

TABLE II. (Cont'd.) Provisional cases of selected notifiable diseases, United States, weeks ending February 7, 1998, and February 1, 1997 (5th Week)

	Legion	nellosis		me ease	Ma	laria	Syp (Primary &		Tubero	culosis	Rabies, Animal
Reporting Area	Cum. 1998	Cum. 1997	Cum. 1998	Cum. 1997	Cum. 1998	Cum. 1997	Cum. 1998	Cum. 1997	Cum. 1998*	Cum. 1997	Cum. 1998
UNITED STATES	58	86	152	239	62	108	580	857	552	875	540
NEW ENGLAND	2	5	11	61	1	2	9	11	9	17	107
Maine N.H.	-	2	-	3	-	1	-	-	U -	2	14 8
Vt. Mass.	2	1 2	10	1 7	- 1	- 1	9	- 5	- 7	6	3 36
R.I. Conn.	-	-	1	6 44	-	-	-	6	2 U	1 8	10 36
MID. ATLANTIC	8	12	83	142	- 12	18	36	41	17	65	149
Upstate N.Y. N.Y. City	2	2	24	4 13	6 3	1	1	8 9	U U	9 28	89 U
N.J.	-	1	-	52	-	9	22	18	17	13	25
Pa. E.N. CENTRAL	6 20	9 42	59 11	73 1	3 5	2 13	9 83	6 64	U 26	15 130	35 3
Ohio	13	23	11	-	1	1	26	24	U	37	3
Ind. III.	2	3 1	-	1	1 -	2 5	8 30	14 10	U 26	9 83	-
Mich. Wis.	5 -	14 1	Ū	Ū	3	5 -	15 4	16	U U	1	-
W.N. CENTRAL	4	5	1	-	-	1	9	20	10	20	31
Minn. Iowa	-	-	1	-	-	1	-	7 1	U U	9 4	8 16
Mo. N. Dak.	2	3	-	-	-	-	6	10	10 U	5 1	1
S. Dak. Nebr.	2	- 1	-	-	-	-	-	-	-	1	-
Kans.	-	1	-	-	-	-	3	2	Ū	-	6
S. ATLANTIC Del.	12 1	7 1	38	22 2	23 1	15 1	222	326 3	53	61 2	199
Md.	4	5	37	16	11	2	41	103	13	7	57
D.C. Va.	1 2	1 -	1 -	3	3 1	2 1	7 27	6 18	10 -	6 16	- 51
W. Va. N.C.	N 1	N -	-	- 1	2	- 1	- 53	62	9 21	6 17	6 39
S.C. Ga.	-	-	-	-	3	3 3	30 47	48 62	U U	1	5 20
Fla.	3	-	-	-	2	2	17	24	ŭ	6	21
E.S. CENTRAL Ky.	-	3	4	9 1	-	2	109 9	196 10	- U	58 12	13 1
Tenn. Ala.	-	- 1	4	1	-	- 1	61 26	75 54	Ŭ U	19 24	6 6
Miss.	-	2	-	7	-	1	13	57	Ü	3	-
W.S. CENTRAL Ark.	-	-	-	-	2	-	63 21	146 21	-	104	19 1
La. Okla.	-	-	-	-	2	-	36 6	53 15	- U	- 8	- 18
Tex.	-	-	-	-	-	-	-	57	Ü	96	-
MOUNTAIN Mont.	7	8	-	-	5	8 1	24	20	11	13	7 2
ldaho	-	-	-	-	-	-	-	-	-	-	-
Wyo. Colo.	2	2	-	-	3	4	2	-	ų.	1 3	5 -
N. Mex. Ariz.	1 -	3	-	-	2	-	20	- 18	U 11	6	-
Utah Nev.	4	2 1	-	-	-	3	2	2	Ū	3	-
PACIFIC	5	4	4	4	14	49	25	33	426	407	12
Wash. Oreg.	-	1 -	-	2	3	2	1 1	1	U U	26 10	-
Calif. Alaska	5	3	4	2	11	4 7	23	32	415 4	343 7	11 1
Hawaii	-	-	-	-	-	-	-	-	7	21	-
Guam P.R.	-	-	-	-	-	2	- 15	- 18	-	4	- 4
V.I. Amer. Samoa	-	-	-	-	-	-	-	-	-	-	-
C.N.M.I.	-	-	-	-	-	-	1	-	4	-	-

N: Not notifiable U: Unavailable -: no reported cases

^{*}Additional information about areas displaying "U" (e.g., Tuberculosis) can be found in Notices to Readers, *MMWR* Vol. 47, No. 2, p. 39.

TABLE III. Provisional cases of selected notifiable diseases preventable by vaccination, United States, weeks ending February 7, 1998, and February 1, 1997 (5th Week)

	H. influ	ienzae,	Hepatitis (Viral), by type					Measles (Rubeola)							
		sive	-			3	Indiç	genous		ported [†]		tal			
Reporting Area	Cum. 1998*	Cum. 1997	Cum. 1998	Cum. 1997	Cum. 1998	Cum. 1997	1998	Cum. 1998	1998	Cum. 1998	Cum. 1998	Cum. 1997			
UNITED STATES	91	100	1,182	2,007	438	629	-	-	1	1	1	10			
NEW ENGLAND	6	10	26	47	1	18	-	-	-	-	-	-			
Maine N.H.	1	2 2	5 1	2 1	1	1 1	Ū	-	Ū	-	-	-			
Vt.	-	-	1	2	-	-	-	-	-	-	-	-			
Mass. R.I.	5 -	5 1	3 2	24 1	-	12 -	-	-	-	-	-	-			
Conn.	-	-	14	17	-	4	-	-	-	-	-	-			
MID. ATLANTIC Upstate N.Y.	9 3	16 1	44 25	201 8	50 20	105 12	-	-	1 1	1 1	1 1	3 1			
N.Y. City	1	6	10	103	10	47	-	-	-	-	-	1			
N.J. Pa.	5 -	6 3	1 8	39 51	20	23 23	-	-	-	-	-	1 -			
E.N. CENTRAL	10	14	198	268	68	121	-	-	-	-	-	1			
Ohio	9	9	49	53	9	10	-	-	-	-	-	-			
Ind. III.	1 -	5	26 -	29 95	4	18 34	-	-	-	-	-	-			
Mich. Wis.	-	-	116 7	63 28	54 1	55 4	-	-	-	-	-	1			
W.N. CENTRAL	2	4	, 147	141	24	45	-	-	-	-	-	-			
Minn.	-	2	-	1	-	-	-	-	-	-	-	-			
lowa Mo.	1 1	2	62 80	18 81	4 17	2 36	-	-	-	-	-	-			
N. Dak.	-	-	-	-	-	-	U	-	U	-	-	-			
S. Dak. Nebr.	-	-	1 2	5 7	1 -	2	-	-	-	-	-	-			
Kans.	-	-	2	29	2	5	-	-	-	-	-	-			
S. ATLANTIC Del.	26	17	96	109 6	48	46 1	-	-	-	-	-	-			
Md.	9	5	29	46	10	19	-	-	-	-	-	-			
D.C. Va.	3	1	2 14	1 15	1 5	2 4	-	-	-	-	-	-			
W. Va.	1	1	-	1	-	2	-	-	-	-	-	-			
N.C. S.C.	1 -	5 -	9 5	13 7	16 -	8 5	-	-	-	-	-	-			
Ga. Fla.	6 6	2 3	11 26	5 15	6 10	- 5	-	-	-	-	-	-			
E.S. CENTRAL	2	10	27	66	41	54	_	_	_	_	_	1			
Ky.	-	-	-	9	-	2	-	-	-	-	-	-			
Tenn. Ala.	2	5 5	16 11	30 11	31 10	37 5	-	-	-	-	-	1			
Miss.	-	-	-	16	-	10	U	-	U	-	-	-			
W.S. CENTRAL Ark.	5	3	45 1	142 14	12 8	9 3	-	-	-	-	-	-			
La.	3	-	2	-	1	3	-	-	-	-	-	-			
Okla. Tex.	1 1	2 1	35 7	96 32	3	3	-	-	-	-	-	-			
MOUNTAIN	21	6	287	367	74	84	_	_	_	-	-	-			
Mont.	-	-	6 14	10	1 3	-	-	-	-	-	-	-			
ldaho Wyo.	-	-	4	21 3	1	2	-	-	-	-	-	-			
Colo. N. Mex.	1	1 1	28 19	58 20	9 22	22 26	-	-	-	-	-	-			
Ariz.	14	2	174	141	21	18	-	-	-	-	-	-			
Utah Nev.	1 5	1 1	20 22	87 27	8 9	11 5	Ū	-	Ū	-	-	-			
PACIFIC	10	20	312	666	120	147	-	_	-	-	_	5			
Wash. Oreg.	- 7	- 5	38 32	9 52	12 8	- 14	-	-	-	-	-	-			
Calif.	3	13	239	592	98	129	-	-	-	-	-	2			
Alaska Hawaii	-	2	3	3 10	1 1	2 2	-	-	-	-	-	3			
Guam	_	-	-	-	-	1	U	_	U	-	_	-			
P.R.	-	-	-	17	7	24	Ū	-	-	-	-	-			
V.I. Amer. Samoa	-	-	-	-	-	-	U	-	U U	-	-	-			
C.N.M.I.	-	2	-	-	3	4	U	-	U	-	-	-			

N: Not notifiable

U: Unavailable

^{-:} no reported cases

 $^{^*\}hspace{-0.5em}.$ Of 22 cases among children aged <5 years, serotype was reported for 9 and of those, 4 were type b.

[†]For imported measles, cases include only those resulting from importation from other countries.

TABLE III. (Cont'd.) Provisional cases of selected notifiable diseases preventable by vaccination, United States, weeks ending February 7, 1998, and February 1, 1997 (5th Week)

		ococcal ease		Mumps			Pertussis		Rubella			
Reporting Area	Cum. 1998	Cum. 1997	1998	Cum. 1998	Cum. 1997	1998	Cum. 1998	Cum. 1997	1998	Cum. 1998	Cum. 1997	
UNITED STATES	262	353	6	24	27	51	288	421	2	12	3	
NEW ENGLAND	26	21	-	-	-	9	61	157	-	-	-	
Maine N.H.	1 1	1 2	Ū	-	-	1 U	1 5	4 17	Ū	-	-	
Vt.	1	-	-	-	-	3	13	58	-	-	-	
Mass. R.I.	10 3	13 1	-	-	-	5 -	42	78 -	-	-	-	
Conn.	10	4	-	-	-	-	-	-	-	-	-	
MID. ATLANTIC	21	23	-	1	3	6	17	19	2	10	1	
Upstate N.Y. N.Y. City	4 3	2 4	-	1 -	-	6 -	17 -	12 3	2	10 -	1	
N.J. Pa.	14	5 12	-	-	1 2	-	-	1 3	-	-	-	
E.N. CENTRAL	- 37	63	2	3	4	2	- 21	3 48	-	_	2	
Ohio	26	26	2	3	2	2	18	25	-	-	-	
Ind. III.	5	9 17	-	-	2	-	-	3	-	-	-	
Mich.	3	4	-	-	-	-	3	14	-	-	-	
Wis. W.N. CENTRAL	3 17	7 33	-	-	-	- 4	- 11	6 8	-	-	2	
Minn.	-	2	-	-	-	4	11 6	8 1	-	-	-	
lowa Mo.	2 7	9 14	-	-	-	-	3	4	-	-	-	
N. Dak.	-	-	Ū	-	-	Ū	-	-	Ū	-	-	
S. Dak. Nebr.	3 1	1 2	-	-	-	-	2	1 1	-	-	-	
Kans.	4	5	-	-	-	-	-	i	-	-	-	
S. ATLANTIC	51	55	2	9	1	7	34	21	-	1	-	
Del. Md.	- 7	2 4	-	2	-	-	6	20	-	-	-	
D.C.	7	2	-	-	-	-	-	-	-	-	-	
Va. W. Va.	2	1	-	-	-	-	-	-	-	-	-	
N.C. S.C.	4 5	9 15	1	4 2	-	2	23	- 1	-	1	-	
Ga.	16	11	-	-	-	-	-	-	-	-	-	
Fla.	10	8	1	1	1	5	5	-	-	-	-	
E.S. CENTRAL Ky.	9	33 7	-	-	4	1 -	10 -	11 2	-	-	-	
Tenn.	9	12	-	-	1	-	2	3	-	-	-	
Ala. Miss.	-	9 5	Ū	-	1 2	1 U	8 -	4 2	Ū	-	-	
W.S. CENTRAL	17	4	1	3	3	5	12	4	-	1	-	
Ark. La.	2 4	2	-	-	-	1 -	6	2	-	-	-	
Okla.	11	1	-	-	-	-	-	-	-	-	-	
Tex.	-	1	1	3	3	4	6	2	-	1	-	
MOUNTAIN Mont.	25 1	23 1	-	1 -	3	13 -	102 1	107 -	-	-	-	
Idaho Wyo.	- 1	2	-	-	-	11	55 -	71	-	-	-	
Colo.	11	1	-	-	1	1	10	3 22	-	-	-	
N. Mex. Ariz.	3 8	6 7	N -	N 1	N -	1 -	31	6 4	-	-	-	
Utah	1	3	-	-	1	-	4	-		-	-	
Nev.	-	3	U	-	1	U	1	1	U	-	-	
PACIFIC Wash.	59 8	98 7	1 -	7 -	9	4 3	20 5	46 4	-	-	-	
Oreg. Calif.	23 28	29 62	N	N 1	N 5	1	8 7	3 38	-	-	-	
Alaska	-	-	-	2	-	-	-	38 1	-	-	-	
Hawaii	-	-	1	4	4	-	-	-	-	-	-	
Guam P.R.	-	-	U -	-	- 1	U	-	-	U	-	-	
V.I.	-	-	U	-	-	U	-	-	U	-	-	
Amer. Samoa C.N.M.I.	-	-	U U	-	-	U U	-	-	U	-	-	

N: Not notifiable

U: Unavailable

-: no reported cases

TABLE IV. Deaths in 122 U.S. cities,* week ending February 7, 1998 (5th Week)

	All Causes, By Age (Years)								All Causes, By Age (Years)						
Reporting Area	All Ages	>65	45-64	25-44	1-24	<1	P&I [†] Total	Reporting Area	All Ages	>65	45-64	25-44	1-24	<1	P&l [†] Total
NEW ENGLAND Boston, Mass. Bridgeport, Conn. Cambridge, Mass. Fall River, Mass. Hartford, Conn. Lowell, Mass. Lynn, Mass. New Bedford, Mass. New Haven, Conn. Providence, R.I. Somerville, Mass. Springfield, Mass. Waterbury, Conn. Worcester, Mass. MID. ATLANTIC Albany, N.Y. Allentown, Pa. Buffalo, N.Y. Camden, N.J. Elizabeth, N.J.	708 211 20 19 29 65 40 8 8 34 72 6 50 26 90 2,734 41 116 70 32 222	546 160 15 18 25 47 30 5 32 22 53 6 6 36 21 76 1,962 32 14 52 19 19	3 4 9 8 2 3 6 15 3 3 10 496 7	45 14 1 1 4 2 1 3 4 1 9 2 3 3 175 1 1 2	11 3 - - 3 - - 2 3 - - - - - - - - - - - -	8 2 1 - 2 - - - 2 - 1 46 - 1	98 25 1 2 4 5 1 3 6 16 7 21 190 2 1	S. ATLANTIC Atlanta, Ga. Baltimore, Md. Charlotte, N.C. Jacksonville, Fla. Miami, Fla. Norfolk, Va. Richmond, Va. Savannah, Ga. St. Petersburg, Fla. Tampa, Fla. Washington, D.C. Wilmington, Del. E.S. CENTRAL Birmingham, Ala. Chattanooga, Tenn. Knoxville, Tenn. Lexington, Ky. Memphis, Tenn. Mobile, Ala. Montgomery, Ala.	213 100 21 994 221	822 U 159 63 113 72 42 46 45 52 152 59 19 711 154 63 125 38 140 45	247 U 566 211 344 23 111 24 133 12 39 12 2 162 35 16 17 16 34 8 9	109 U 36 7 13 12 3 4 14 14 7 7 19 4 7 5 19 3 2	31 U 2 3 6 5 5 2 2 5 2 5 6 3 1 7 1 2	35 U 7 4 1 2 1 3 13 - 2 1 4 3 1 1 4 3 1 4 3 1 4 3 1 4 3 1 4 3 1 4 3 1 4 3 1 4 3 1 4 3 1 4 3 1 4 3 1 4 3 1 4 3 1 4 3 1 4 3 1 4 3 4 3	81 U 31 8 2 - 4 4 6 4 20 2 - 108 22 11 31 9 18 29
Erie, Pa. Jersey City, N.J. New York City, N.Y. Newark, N.J. Paterson, N.J. Philadelphia, Pa. Pittsburgh, Pa.§ Reading, Pa. Rochester, N.Y. Schenectady, N.Y. Scranton, Pa. Syracuse, N.Y. Trenton, N.J. Utica, N.Y. Yonkers, N.Y. E.N. CENTRAL Akron, Ohio Canton, Ohio Chicago, Ill. Cincinnati, Ohio Cleveland, Ohio Columbus, Ohio	48 54 1,344 65 21 500 110 31 142 34 32 110 24 38 U 2,323 68 43 471 109 181 207	38 40 953 27 15 335 84 112 29 25 91 21 34 U 1,633 51 31 278 74 129 140	5 7 263 22 9 9 5 16 3 3 4 9 2 3 U 436 12 20 11 5 20 3 1 48	4 4 83 9 3 43 3 2 4 1 3 8 1 - U 134 2 2 43 6 10 12	2 25 41 16 2 1 1 - 1 1 71 22 3 3 4	11 20 3 3 - 111 5 - 2 1 1 - - U 48 1 1 - - - - - - - - - - - - - - - - -	4 4 77 1 41 8 4 16 2 13 2 6 0 149 12 4 22	Montgomery, Ala. Nashville, Tenn. W.S. CENTRAL Austin, Tex. Baton Rouge, La. Corpus Christi, Tex. Dallas, Tex. El Paso, Tex. Ft. Worth, Tex. Houston, Tex. Little Rock, Ark. New Orleans, La. San Antonio, Tex. Shreveport, La. Tulsa, Okla. MOUNTAIN Albuquerque, N.M. Boise, Idaho Colo. Springs, Colo Denver, Colo. Las Vegas, Nev. Ogden, Utah Phoenix, Ariz.	132 1,648 98 42 54 234 U 123 464 85 74 221 95 158 1,255 140 55	1,077 68 20 38 296 88 296 59 35 151 75 110 927 91 48 490 221 28	347 347 15 14 6 53 U 18 112 18 22 40 13 36 27 37 22 55 7 34	138 138 9 4 5 29 0 8 37 2 9 22 5 8 73 14 2 4 8 15 2 5	5 52 3 4 2 11 6 13 2 4 4 2 1 2 4 4 1 5 2 3	34 34 4 4 4 4 1 5 1 5	96 134 8 2 2 12 14 50 4 - 18 12 6 15 27 5 17
Dayton, Ohio Detroit, Mich. Evansville, Ind. Fort Wayne, Ind. Gary, Ind. Grand Rapids, Micl Indianapolis, Ind. Lansing, Mich. Milwaukee, Wis. Peoria, Ill. Rockford, Ill. South Bend, Ind. Toledo, Ohio Youngstown, Ohio W.N. CENTRAL Des Moines, Iowa Duluth, Minn. Kansas City, Kans. Kansas City, Mo. Lincoln, Nebr. Minneapolis, Minn. Omaha, Nebr. St. Louis, Mo. St. Paul, Minn. Wichita, Kans.	162 45 142 55 53 42 95 66 1,127 104 46 41 137	123 147 39 58 11 51 119 33 112 45 33 62 25 854 85 36 34 99 75 91 125 84	24 7 166 12 7 4 13 5 43 22 25 16	5034135251 - 352 544339 - 99467	11 - 4 32 - 3 - 1 - 3 4 - 9 1 - 1 22 - 1 - 2	2 4 4 - 1 1 2 2 2 1 1 1 1 1 2 2 2 3 3 - 7 1 3 3 4 4 2 2	14 8 4 8 - 2 14 5 9 1 10 3 86 14 5 - 2 6 8 10 - 14 7	Proenty, Artz. Pueblo, Colo. Salt Lake City, Utah Tucson, Ariz. PACIFIC Berkeley, Calif. Fresno, Calif. Glendale, Calif. Honolulu, Hawaii Long Beach, Calif. Pasadena, Calif. Pasadena, Calif. Portland, Oreg. Sacramento, Calif. San Diego, Calif. San Francisco, Calif. San Jose, Calif. Santa Cruz, Calif. Seattle, Wash. Spokane, Wash. Tacoma, Wash.	37 115 196 1,795 16 99 16 104 110 340 36 81 223 170	27 87 145 1,319 13 74 11 80 84 245 28 57 167 126 U 210 22 82 68	7 14 30 283 2 17 1 12 18 59 6 14 33 19 U 52 3 21 11 15	5 2 8 13 112 1 4 3 5 3 22 5 15 14 U 11 12 3 10 912	3 6 43 3 1 3 6 5 U 8 1 1 1 1 3 3 2 1	1 32 38 1 4 5 4 1 2 2 6 U 6 3 1 3	17 18 26 229 2 8 1 7 29 15 6 4 56 27 U 47 3 10 9

U: Unavailable -: no reported cases

*Mortality data in this table are voluntarily reported from 122 cities in the United States, most of which have populations of 100,000 or more. A death is reported by the place of its occurrence and by the week that the death certificate was filed. Fetal deaths are not included.

†Pneumonia and influenza.

Because of changes in reporting methods in this Pennsylvania city, these numbers are partial counts for the current week. Complete counts will be available in 4 to 6 weeks.

Total includes unknown ages.

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